

# Department of Conservation Division of Oil, Gas, and Geothermal Resources

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WELL MANAGEMENT & DATA REPORTING IMPLEMENTATION

<<DATE OF PRESENTATION>> DRAFT



Department of  
Conservation

# Agenda

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- ❖ Well Management and Data Reporting Implementation Project Background
- ❖ Well Management and Data Reporting Project Objectives
- ❖ Alternatives Considered
- ❖ Method Evaluation Results and Selected Method
- ❖ Selected Technology Solution
- ❖ Benefits and Risks of Solution and Method
- ❖ High-Level Timeline
- ❖ Next Steps

# Well Management and Data Reporting Implementation Project Background

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- ❖ Division of Oil, Gas, and Geothermal Resources (DOGGR) is required to meet multiple statutory and Federal mandates:
  - ❖ U.S. Environment Protection Agency
    - ❖ Install a searchable well management database in support of the Underground Injection Control (UIC) for program for Class II wells by February 15, 2017
  - ❖ California State Legislature: SB-4: Oil & Gas: Well Stimulation (2013-2014):
    - ❖ Deliver an Internet site to allow oil and gas operators to report on well stimulation treatments and provide the public access to this data by January 1, 2016
    - ❖ Submit a comprehensive report on January 1, 2016 and annually thereafter to the legislature and made available to the public on well stimulation in the exploration and production of gas and oil in California
    - ❖ Implement a new and robust permitting system for oil and gas operators by July 2015
    - ❖ Complete an independent study evaluating the hazards and risks associated with well stimulation treatments by July 2015 and the impact on groundwater by January 1, 2020
  - ❖ California State Legislature: SB-1281: Oil & Gas Production: Water Use: Reporting (2013-2014):
    - ❖ Collection of oil, gas, and water data from operators on a monthly basis starting in August 2015
    - ❖ Consolidation and analysis of large volumes of data for quarterly reporting to the legislature and public

# Well Management and Data Reporting Implementation Project Objectives

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- ❖ Delivers compliance with the law / regulations
- ❖ Yields immediate value / demonstrates progress / quick wins
- ❖ Addresses and prioritizes immediate issues of key stakeholders
- ❖ Is expeditious / urgent
- ❖ Enables district office involvement / supports system adoptions vs. system imposition
- ❖ Drives business process improvement / standardization / efficiency / quality
- ❖ Integrates with external entities / enterprise view
- ❖ Supports future analysis / independent studies / reviews / audits (long-term outlook)

# Alternatives Considered

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## ❖ **Option 1: Status Quo**

- ❖ Continue to do business as it is done today
- ❖ Upgrade / invest in legacy well management and data reporting systems
- ❖ Develop new and non-integrated data repositories to support new mandates (e.g., SB-4, SB-1281)

## ❖ **Option 2: Traditional Waterfall Implementation Method**

- ❖ Follows sequential approach to system implementation
- ❖ Delivers custom information technology solution
- ❖ Upfront requirements definition and validation follows by long periods of design, development, and testing
- ❖ Larger system deployments at one time

## ❖ **Option 3: Prioritized Iterations Method**

- ❖ Uses Proof of Concept approach for product evaluation prior to full procurement of a solution
- ❖ Assumes use of Commercial Off The Shelf (COTS) software product
- ❖ Follows shortened sequential approach to system implementation
- ❖ Delivers more frequent and small deployments of functional software
- ❖ Requirements are confirmed using a system fit/gap analysis versus a traditional requirement collection/validation method
- ❖ Software product drives business standardization

# Method Evaluation Results & Selected Method

Project Objective	Option 1: Status Quo	Option 2: Traditional Waterfall	Option 3: Prioritized Iterations
Delivers compliance with laws / regulations	✓	✓	✓
Yields immediate value / quick wins			✓
Addresses and prioritizes immediate issues of key stakeholders			✓
Is expeditious / urgent			✓
Enables district office involvement / supports system adoptions vs. imposition			✓
Drives business process improvements / standardization / efficiency / quality		✓	✓
Integrated with external entities / enterprise view		✓	✓
Supports future analysis / independent studies / reviews / audits (long-term outlook)		✓	✓

# Selected Technology Solution: Ground Water Protection Council Risk Based Data Management System (RBDMS)

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## ❖ Why RBDMS?

### ❖ Supports U.S. EPA Underground Injection Control Program for Class II Wells

- ❖ UIC module is compliant with all requirements of the Safe Drinking Water Act administered by California

### ❖ Supports SB-1281

- ❖ Collection, storage, and reporting on source, treatment, re-use, and disposition of water used in oil and gas drilling stimulation as well as tracking the storage of water onsite

### ❖ Supports SB-4

- ❖ Web-enabled e-form electronic permitting for well stimulation
- ❖ Complete data system to track electronically drilling, operations, maintenance, stimulation, and abandonment of wells
- ❖ Operator portal to allow operators to apply for permits, check status of pending permits, interact with permitting engineers, and check information on other owned / operated wells
- ❖ Hydrofac module that electronically accepts, stores, and reports all chemical used in stimulation as well as compares stimulations with well completion reports to check for chemical filing compliance
- ❖ Notifications to the public and other state agencies, as well as acceptance of public comments electronically

### ❖ Offers expanded functionality

- ❖ Tracks fuel and nonfuel mining resources
- ❖ Seismic activity tracking (in progress)

# Benefits of Solution and Method

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## ❖ Benefits:

- ❖ Supports product evaluation of the RBDMS software product to determine if it meets the needs of DOGGR prior to full deployment
- ❖ Delivers business value quickly
- ❖ Minimizes product investment risk
- ❖ Base set of requirements is delivered 'out of the box'
- ❖ Drives business process standardization
- ❖ Supports centralized data management reporting
- ❖ RBDMS is a proven solution deployed in 23 states
- ❖ Does not require full data conversion prior to implementation and/or deployment
- ❖ Supports system 'adoption' versus system 'imposition'



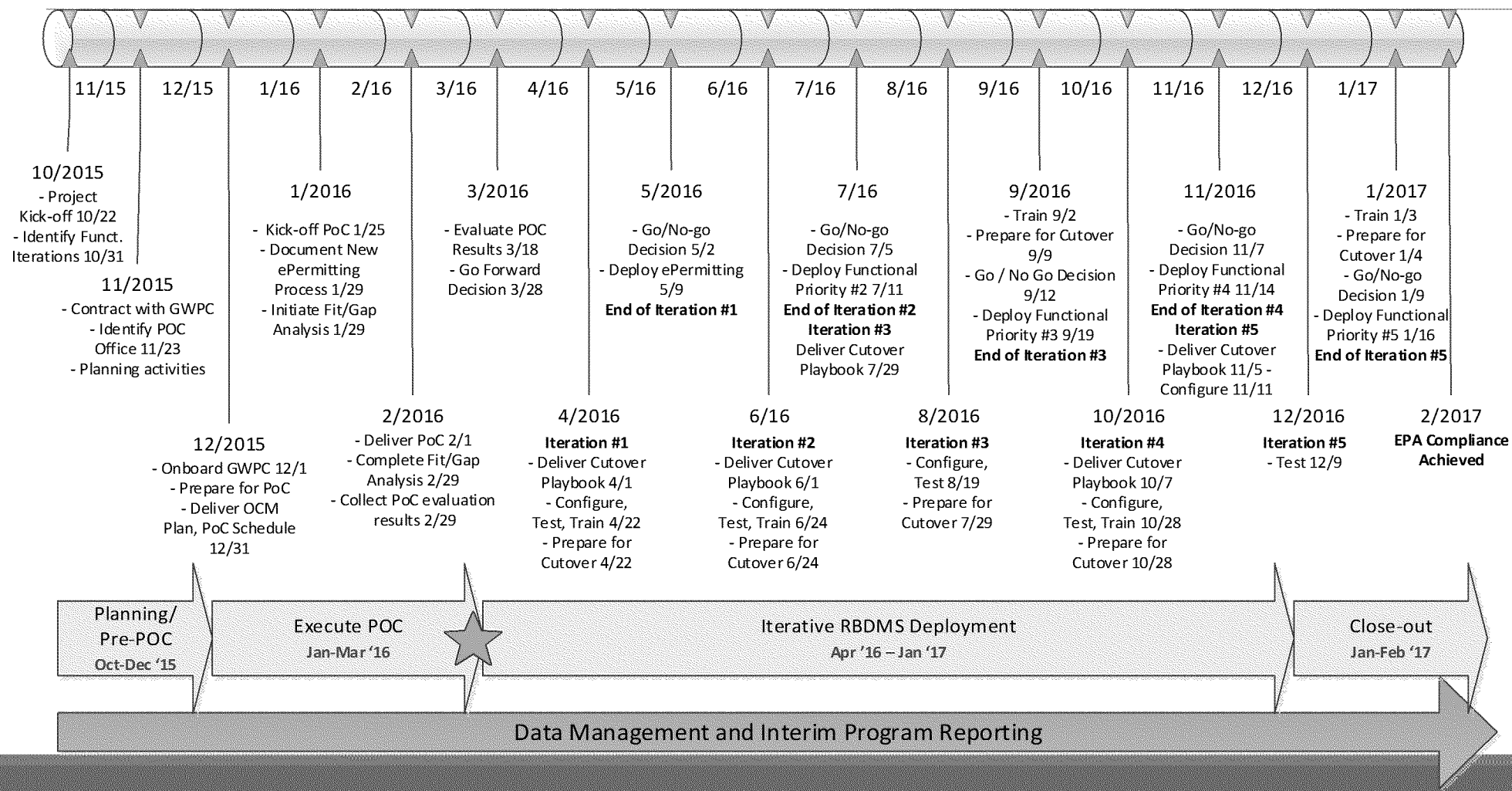
# Risks of Solution and Method

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## ❖ Risks:

- ❖ If dedicated DOGGR subject matter experts / resources are not available to support the project, then the project will be delayed and/or a solution will be deployed that does not meet DOGGR's requirements
- ❖ If functional and non-functional requirements are not fully defined, then there may be missed and/or incomplete business functionality delivered
- ❖ If PoC fails and GWPC is not able to deliver on a remediation plan to the satisfaction of DOGGR, then achieving the February 15, 2017 EPA compliance date is at risk
- ❖ If the DOGGR resources do not accept using the new well management system in a standardized way, the project will not succeed.
- ❖ Because the scope of each functional iteration is not yet defined, the proposed project schedule and timeline may be negatively impacted

# High-Level Timeline for Implementation



# Next Steps

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- ❖ DOGGR to complete contract with GWPC for procurement of RBDMS through PoC
- ❖ Onboard the GWPC team
- ❖ Update project schedule with input from GWPC and DOGGR
- ❖ Focus on building the project management infrastructure to support project execution
- ❖ Develop and implement an Organizational Change Management Plan to support organizational readiness
- ❖ Measure and report on project progress